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Remarks

This amendment is responsive to the official action of Paper No. 04142005, mailed July 22, 2005. A request for one month Extension under 37 C.F.R. §1.136(a) is submitted with a charge authorization for the required fee that appears on the attached Transmittal Letter. Applicant also submits a Supplemental Information Disclosure Statement (no fee required). Finally, a Request for Refund as to the extension fee is submitted on grounds stated therein.

Claims 1-10 are pending. Claims 1 and 10 are independent, with claim 1 being an apparatus claim and claim 10 being a method claim. Claims 1-10 are rejected in the official action as anticipated by US Pat. 5,354,951 – Lange, Sr., et al. under 35 U.S.C. §102. The claims have been amended to better distinguish over the prior art, including Lange. Reconsideration and withdrawal of the rejection are requested.

The invention concerns a shielding box having conductive parts that are mechanically affixed together and electrically connected by defined structures. The prior art of record shows that shielding boxes are conventional, per se. However there is no example anywhere in the prior art of record wherein the mechanical engagement and electrical connection of the conductive parts is achieved according to applicant's invention as particularly claimed. There is no basis of record to assert that the invention claimed as a whole is disclosed in the prior art, and there is no reason to believe that the invention claimed as a whole would have been obvious. Therefore, the application is in condition for allowance.

In the cited prior art patent to Lange, as in a number of other references cited, a shielding box is defined by wholly or partly overlapping panels, typically as a body part and a lid part. The panels that overlap in the prior art are parallel to the plane of overlap. Tabs are formed along one of the panels, the tabs also all being parallel to the plane of overlap, such that an area or line of contact extends over the full width of the tabs.

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In Lange, successive tabs along one such panel as described are placed in alternating positions inside and outside the plane of the opposed panel. In other prior art references, the tabs all reside on one side of the opposed panel. Nevertheless, in every prior art reference of record, the tabs are made to lay flat such that the surfaces of the tabs bear resiliently against the surface of the opposed panel in a flat face-to-face or face-to-edge contact over the width of the tabs. The prior art does not disclose or suggest applicant's invention wherein tabs are provided with slots that cross the plane of the opposed panel and receive the opposed panel in the slots.

The alternating tabs in Lange are clearly shown in Figs. 2, 4 and 5. The assembled parts are shown in Figs. 1, 6, and 7.

In Lange, when the body part and lid part are assembled, the odd tabs reside on one side of the opposed panel and the even tabs reside on the opposite side. The odd and even tabs bear resiliently inwardly on opposite sides of the panels.

Lange does not teach or suggest tabs or other portions of limited length that are diverted from the plane and provided with a slot that engages the panel of the opposed part. On the contrary, the tabs all lie flat against one side or the other of the opposed panel. There is no mechanical engagement involving fitting one panel into a slot formed in a tab or the like of the other panel.

Assuming that the person of ordinary skill might somehow regard two or more successive tabs in Lange as a portion of limited width, without a hindsight knowledge of applicant's invention, the Lange structure still does not meet applicant's invention claimed as a whole. Fig. 5 of Lange clearly shows that the slots between the tabs are at least twice as wide as the thickness of the sheet material. Lange's engagement is limited to opposed flat finger tabs and does not involve mechanical and electric engagement involving slots between the finger tabs. On the contrary, Lange provides slot clearance, and achieves mechanical and electric contact by face-to-face engagement of the tabs and panels. Lange and the other prior art fail to disclose or suggest a shielding arrangement mounted by pinching the sheet material of one panel in a slot in an opposed tab where there is an interference fit.

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Referring to applicant's Figs. 1-3, mechanical and electrical engagement is made by with a portion of one of the panels, in this case tab 84, that diverges from the plane of its wall 54 to cross the plane of the opposed wall 64. A slot in at least one of the crossing panel portions engages the other panel portion. In this example, slot 75 is provided to engage the wall 64 in the slot 75. In preferred arrangements, both panels have converging slots and the slots achieve an interference fit assembly, which is illustrated in successive stages by applicant's Figs. 2 and 3. This arrangement is unlike that shown in Lange and the other prior art.

In the official action, the claims are compared to the prior art. Independent claims 1 and 10 have been amended to better distinguish over the prior art. Independent claim 1 recites:

at least one of the first and second elements has at least a portion of a limited length, oriented to cross a plane of the barrier surface defined by the other of said first and second elements, wherein said portion has a receiving slot into which the other of said first and second elements is insertable, said receiving slot having an inside width that is nominally smaller than an outside width of said other of said first and second elements for insertion into the receiving slot, wherein at least one of said receiving slot and said other of the first and second elements is deformed by said insertion . . .

Claim 1 thus particularly recites the engagement using a receiving slot engagement, and the receiving slot engagement is such that the slot width is less than the thickness of the panel part it receives. The resulting interference fit provides electrical and mechanical engagement. This subject matter is not disclosed in Lange. There is no basis to assert that Lange teaches or suggests any similar arrangement. The rejection for anticipation is overcome and there is no basis to substitute a rejection for obviousness.

Independent claim 10 likewise now recites sizing the receiving slot with an inside width that is nominally smaller than an outside width of said other of said

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first and second elements for insertion into the receiving slot so as to provide an interference fit of said other of said first and second elements into the receiving slot and forcibly inserting the parts during assembly. This subject matter is not found in or suggested by the prior art.

Among the references that are cited in addition to Lange are various finger tabs, typically residing all on one side of an opposed element that is to be resiliently affixed. Even if such devices are modified to alternate tabs as in Lange, the only technique reasonably disclosed, taught or suggested in the prior art is to provide resilient tabs that lay flat on their opposed surfaces. There is no suggestion of a slot.

Applicant has taken this opportunity to cite Pat. 4,754,101 - Stickney, which is believed to have been misidentified in the official action by Pat. 4,754,100 - Sorensen, which seems to have been a keystroke error. The Stickney patent is another example of flat-face engaged tabs, in this case with the inner faces of tabs 26 (termed engagement prongs) bearing against the edge of the lid panel. Stickney has Veeshaped structures between solder pins 20, but there is no mechanical or electrical engagement disclosed or suggested that might resemble or lead routinely to applicant's invention claimed as a whole.

For the foregoing reasons, claims 1, 10 are properly allowable over the prior art. There is no single reference that meets the elements that are particularly claimed. There is no group or combination of references that could lead routinely to the invention claimed as a whole.

Claims 2-9 depend from claim 1 and recite additional details. Claim 5 particularly defines applicant's the tab orientation shown in Figs. 1-3, which it unlike the prior art. Claim 6 defines the arrangement shown in Figs. 6 and 7 where the slotted part is in a connecting wall to flat wall portion. Claim 9 recites that the slot is provided with converging knife edges. These aspects are also not found or suggested in the prior art of record.

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The differences between the invention and the prior art are such that the subject matter claimed as a whole is not shown to have been known or obvious. Therefore, the application is in condition for allowance. Reconsideration and allowance are hereby requested.

Respectfully submitted,

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Stephan P. Gribok, Reg. No. 29,643

Duane Morris LLP 30 South 17th Street

Philadelphia, PA 19103-4196

tel. 215-979-1283 fax. 215-979-1020

SPGRIBOK@DUANEMORRIS.COM